

New species of Muscidae from the Ethiopian Region (Diptera)

by

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The following new species collected in South Africa, South West Africa, Rhodesia, Uganda and Ruanda are described. Phaoniinae: *Limnophora paraleptopus*, *L. marriotti*, *L. setulosa*, *L. transversalis*, *L. tibialis*, *L. natalensis*, *Spilogona wittei*, *S. aristalis*, *S. pseudospinipes*, *Phaonia capensis*, *Helina scutellaris*, *H. capensis*, *Mydaea gagnei*, *Hydrotaea patersoni*, *Gymnodia patersoni*. Coenosiinae: *Coenosia stuckenbergi*, *C. longiseta*. Lispininae: *Lispe capensis*. Fanniinae: *Fannia simulata*.

Limnophora paraleptopus spec. nov.

This species resembles *Limnophora leptopus* van Emden, but is distinguishable from it by the absence of a pair of grey longitudinal vittae on the mesonotum, which characterize *L. leptopus*. The abdominal segments III and IV are in *L. paraleptopus* without a median grey longitudinal vitta, which is present on those segments in *L. leptopus*.

FEMALE. Head with the parafacialia and buccae silver-grey dusted, frons black and at its narrowest point about 0.5 times as wide as the vertical length of an eye. Proboscis, palpi and antennae dark, longest rays of the arista about twice as long as the diameter of the arista. Parafrontalia with about 5 pairs of strong bristles, the last 2 pairs reclinate, 1 pair of ocellars and 2 pairs of verticals present. Eyes naked.

Thorax laterally grey, mesonotum shining dark brown, the area before and behind the scutellar somewhat light dusted. Chaetotaxy: acrostichals = short and numerous, irregularly distributed, the posterior pair of postsutural acrostichals somewhat stronger, dorsocentrals = 2+3, humerals = 2, post humerals = 2, notopleurals = 2, mesopleurals = 1+5-6, sternopleurals = 1+2. Legs brown; mid-femur with 2 strong *p* at the apex and 1-2 *a* in the basal half; mid-tibia with 3 *p*; hind-femur with 2 *av* in the apical half and a row of *ad* over the whole length; hind-tibia with 1 *ad* and 1 *av* in the middle third. Wings with a dark brown tinge, veins dark brown, r_{4+5} dorsally and ventrally with about 2 setae on the node, calyptera whitish, halteres yellow.

Abdomen shining dark brown, basal half only of tergites III and IV laterally light brown dusted.

Length about 4.5 mm.

MALE. Unknown.

LOCALITY. SOUTH AFRICA: Natal, Pinetown 2 ♀, iii.1954, *leg.* Paterson. Holotype and 1 ♀ paratype in the South African Institute for Medical Research, Johannesburg.

***Limnophora marriotti* spec. nov., fig. 1**

Limnophora marriotti leads in van Emden's (1951) key to no certain species as the plumose arista is not as wide as the third antennal segment and only 3 pairs of postsutural dorsocentral bristles are present.

MALE. Head with the face intensively goldish dusted. Frons at its narrowest point about $1\frac{1}{2}$ times as wide as the ocellar triangle. Frontal stripe weakly developed anteriorly and dilating above. About 7 pairs of strongly developed parafrontals, 1 pair of ocellars and 1 pair of vertical bristles present. Proboscis, palpi and antennae dark. Arista with short rays. Eyes naked without enlarged facets.

Thorax ground-colour grey. Dorsally on the presutural part of the mesonotum 2 squarish dark brown spots separated from one another by a broad grey vitta. The postsutural part of the mesonotum with a dark brown transverse band extending beyond the second pair of postsutural dorsocentrals. The scutellum dark brown with a small grey tip. Chaetotaxy: acrostichals = short and numerous, irregularly distributed in 4-5 rows, the bristles of the outer rows somewhat stronger, dorsocentrals = 2+3, humerals = 2, posthumerals = 2, notopleurals = 2, mesopleurals = 1+6-7, sternopleurals = 1+2. Hypopleuron bare. Legs brownish with the femora grey dusted. Fore-tibia without a *p*; mid-femur with some *a* in the basal half and 2 strong *p* at the apex; mid-tibia with 2 *p* in about the middle third; hind-femur with a row of *ad* and in the apical half about 4 *av*; hind-tibia with 1 *ad* at about the middle and 1 smaller *av* beyond it. Wings with a brownish tinge, membrane uniformly covered with microtrichiae, veins brown, the node of r_{4+5} dorsally and ventrally with 1 seta. Calyptera white, halteres yellow.

Abdomen ground-colour grey. Tergites I+II, III and IV each with 2 large dark brown spots separated by a broad grey median longitudinal vitta dilating in the apical half. Hypopygium with the cerci and paralobi as in fig. 1.

FEMALE. Resembles male in colour and chaetation, but the frons at its narrowest point about 0.5 times as wide as the vertical length of one eye. Frontal stripe dark brown. Spots of tergites III and IV L-shaped.

Length 5 mm.

LOCALITY. SOUTH AFRICA: Drakensberg N.P., Cathkin Area, 1 ♂ and 1 ♀, vii.1942, *leg.* W. E. Marriott. ♂ holotype and 1 ♀ paratype in the S.A. Institute for Medical Research.

***Limnophora setulosa* spec. nov., fig. 2**

This species resembles *Limnophora obsignata* (Rond.) but is easily distinguished from it by the broad median emargination of the postsutural dark brown transverse band, which is wanting in *L. obsignata*.

FEMALE. Head with the face silver-grey dusted, only the anterior half of the frontal stripe black. Frons at its narrowest point about 0.7 times as wide as the vertical

length of an eye and with about 5 parafrontal bristles, the posterior 2 pairs reclinate. Beside these, some very small bristles distributed on the parafrontalia. 1 pair of very long ocellars and 2 pairs of verticals present. Proboscis, palpi and antennae dark. Eyes naked.

Thorax ground-colour grey, dorsally 2 small roundish brown spots between the anterior posthumeral and the 2 presutural dorsocentrals. Postsutural brown transverse band laterally extending to the second pair of postsutural dorsocentrals, at the row of dorsocentrals extending to the third pair and in the middle extending only just beyond the first pair of dorsocentrals (fig. 2). Scutellar suture and a small area before and behind brown, the remaining parts of the scutellum grey. Chaetotaxy: acrostichals = small and numerous, 1 pair posteriorly somewhat stronger, dorsocentrals = 2 + 4, the anterior 2 post *dc* smaller than the posterior ones, humerals = 3, posthumerals = 2, notopleurals = 2, intra-alars = 2, mesopleurals = 1 + 6, sternopleurals = 1 + 2. Hypopleuron bare. Legs brown with at least the basal two thirds of the femora grey dusted, fore-tibia without a *p*; mid-femur with 1 strong *a* at the middle and 2 *p* at the apex; mid-tibia with 2 *p* in the middle third; hind-femur with 3 *av* in the apical half and a row of *ad*; hind-tibia with 1 *ad* at about the middle and 1 *av* beyond it. Wings hyaline, membrane uniformly covered with microtrichiae, veins yellowish-brown, the node of r_{4+5} dorsally and ventrally with 1-3 fine setae. Calyptera white, halteres yellow.

Abdomen ground-colour grey. Tergite III with 2 brown spots, which are roundish in the paratype and more L-shaped in the holotype. Tergite IV with 2 very small roundish spots and tergite V with a median brown longitudinal vitta.

Length about 6,5 mm.

MALE. Unknown.

LOCALITY. SOUTH AFRICA: Transvaal, Brits, 2 ♀, x.1952 and iii.1955, *leg.* Paterson. ♀ holotype and 1 ♀ paratype in the S.A. Institute for Medical Research.

***Limnophora transversalis* spec. nov.**

Limnophora transversalis resembles the preceding species but differs from it by the lack of the fourth strong pair of postsutural dorsocentrals.

FEMALE. Head with the face grey dusted, only the frontal stripe and a small spot in the anterior part of the parafrontalia dark brown. Proboscis, palpi and antennae dark, the frons at its narrowest point about 0,5 times as wide as the vertical length of an eye. Parafrontalia with about 6 pairs of strong bristles, the posterior 2 pairs reclinate. One pair of very strong ocellars and 2 pairs of strongly developed verticals present. Eyes naked. The head at the mouth-margin longer than at the antennal base.

Thorax ground-colour grey, dorsally on presutural part of the mesonotum 2 large brown squarish spots separated by a broad grey median longitudinal vitta. The brown transversal band of the postsutural part extends laterally to the anterior intra-alar bristle, at the row of dorsocentrals to the second pair of dorsocentrals, and in the middle only to the first pair of postsutural dorsocentrals. The basal fourth of the scutellum brown. Chaetotaxy: acrostichals = short and numerous, irregularly distributed, the posterior pair of the postsutural acrostichals somewhat stronger, dorsocentrals = 2 + 3, humerals = 2, posthumerals = 2, notopleurals = 2, intra-alars = 2, mesopleurals = 1 + 6, sternopleurals = 1 + 2, hypopleuron bare. Legs with the ground-colour brown, but all

femora more or less all over the whole length grey dusted. Fore-tibia without a *p*; mid-femur with 2 *a* in the basal half and 2 strong *p* at the apex; mid-tibia with 2 *p* in the middle third; hind-femur with a row of *ad* and 2 *av* in the apical third; hind-tibia with 1 *ad* at about the middle and 1 *av* beyond it. Wings hyaline, the membrane uniformly covered with microtrichiae, veins brownish, the base of r_{4+5} dorsally and ventrally with some fine setae. Calyptera yellowish-white, halteres yellow.

Abdomen ground-colour grey, tergites III and IV each with 2 brown spots dorsally, tergites I+II with 2 very small and weakly developed spots, tergite V with a very weakly developed narrow longitudinal vitta.

Length about 6.5 mm.

MALE. Unknown.

LOCALITY. SOUTH AFRICA: Transvaal, Johannesburg, 4 ♀, xii.1951 and iv.1952, leg. Paterson. ♀ holotype and 3 ♀ paratypes in the S.A. Institute for Medical Research.

***Limnophora tibialis* spec. nov., figs. 3, 4**

This species leads in van Emden's (1951) key to *Limnophora tetragramma* van Emden but is easily distinguished by the strongly swollen apical half of the fore-tibia (fig. 3) and the less but still distinctively swollen basal half of the fore-metatarsus, whereas *L. tetragramma* has no abnormally swollen forelegs.

MALE. Head ground-colour dark but weakly grey dusted. Frontal stripe dark brown. Proboscis, palpi and antennae brown. About 5 pairs of strong bristles on the parafrontalia, the posterior pair reclinate, and some small bristles irregularly distributed. 1 pair of ocellars and 1 pair of strong verticals present. Eyes naked and without enlarged facets.

Thorax laterally grey dusted, dorsally shining dark brown with the humeral calli and notopleura grey. Area behind the posterior presutural dorsocentrals and before the scutellar suture light grey dusted without forming a definite pattern. Chaetotaxy: acrostichals=numerous and bristle-like, irregularly distributed, dorsocentrals=2+3, the anterior post *dc* very short, humerals=2, posthumerals=2, notopleurals=2. mesopleurals=1+2-4, sternopleurals=1+2, hypopleuron bare. Legs brown. Fore-tibia in the apical half distinctively swollen and without a posterior bristle; fore-metatarsus in the basal half swollen, but not as thick as the fore-tibia; mid-femur with 1 *a* in the basal half and 1 *p* at the apex; mid-tibia with 1 *p*; hind-femur with only some strong *ad* and 2 *av* in the apical third; hind-tibia with 1 *ad* at about the middle. Wings with a brownish tinge, the membrane uniformly covered with microtrichiae, veins brown, r_{4+5} dorsally with 1 small seta on the node. Calyptera white, halteres dark brown.

Abdomen ground-colour grey but tergites I+II and IV dorsally completely shining dark brown, tergite III laterally only with a triangular grey spot in the anterior half, the remaining parts dorsally dark shining brown, tergite V with a very broad dark brown longitudinal vitta. Hypopygium with the cerci and parolobi as in fig. 4.

Length 3.5 mm.

FEMALE. Unknown.

LOCALITY. SOUTH AFRICA: Transvaal, Brits, 1 ♂, iii.1955, leg. Paterson. Holotype in the S.A. Institute for Medical Research.

***Limnophora natalensis* spec. nov.**

Limnophora natalensis resembles *L. quadristriata* van Emden but can be distinguished by the pattern of the mesonotum, which has 4 grey longitudinal vittae in *L. quadristriata* and is uniformly dark brown in *L. natalensis*.

FEMALE. Head with the buccae and parafacialia grey, the parafrontalia dark brown, the frontal stripe light brown dusted. Frons at its narrowest point about 0.6 times as wide as the vertical length of the eye. Parafrontalia with some very small irregularly distributed bristles as well as 5 strong pairs of bristles, the strongest pair above the antennal groove and the 2 posterior pairs reclinate. 1 pair of very long ocellars and 2 pairs of strong verticals present. Proboscis, palpi and antennae dark brown, arista long, the longest rays about twice as long as the basal diameter of the arista. Eyes bare. The head strikingly higher than long and at the mouth-margin not longer than the antennal base.

Thorax laterally dark grey, dorsally shining dark brown with somewhat light brown pollinosity. Humeral calli and notopleura whitish. Chaetotaxy: acrostichals = numerous, short and irregularly distributed, dorsocentrals = 1 + 3, humerals = 2, posthumerals = 2, notopleurals = 2, mesopleurals = 0 + 5, sternopleurals = 1 + 2, hypopleuron bare. Legs brown. Fore-tibia without a *p*; mid-femur with 1 *a* in the middle third and 1 strong *p* at the apex; mid-tibia with 1 *p* at the middle; hind-femur with a row of *ad* and 1 long *av* at the apex; hind-tibia with 1 *ad* in the middle and a weak *av* beyond it. Wings with a dark brownish tinge, membrane covered with microtrichiae, veins dark brown, r_{4+5} ventrally only with some setae at the base, dorsally with a row of long setae, even beyond the cross-vein r-m. Calyptera yellowish-brown, halteres yellow.

Abdomen dorsally shining dark brown, only tergites III and IV with small triangular grey spots laterally in the anterior half of each segment. On tergite V these spots are very small. Ventrally the ground-colour dark with somewhat grey pollinosity.

Length 4.2 mm.

MALE. Unknown.

LOCALITY. SOUTH AFRICA: Natal, St. Helier Est. near Hillcrest, 1 ♀, xii.1954, leg. Stuckenberg. Holotype in the S.A. Institute for Medical Research.

***Spilogona wittei* spec. nov., fig. 5**

Spilogona wittei has dorsally and ventrally on the node of r_{4+5} some fine setae, and the 3 sternopleural bristles form an isosceles triangle; thus it leads to no certain species in van Emden's (1951) key.

MALE. Head with the buccae and parafacialia grey, frons with the frontal stripe dark brown. Proboscis, palpi and antennae dark brown. Arista rather long with short rays, the longest ones hardly longer than the basal diameter of the arista. Frons at its narrowest point not wider than about $1\frac{1}{2}$ times the width of the ocellar triangle and with about 4 pairs of strong parafrontal bristles in the anterior half. 1 pair of long

ocellars and 1 pair of verticals present. Eyes naked and without enlarged facets. Head at the mouth-margin longer than at the antennal base.

Thorax ground-colour dark to dark grey, dorsally almost shining dark brown with a narrow grey dusted longitudinal vitta along the presutural dorsocentrals and dilating at the suture, humeral calli and notopleura grey. Chaetotaxy: acrostichals = numerous, short and irregularly distributed, dorsocentrals = 2 + 3, humerals = 2, posthumerals = 2, notopleurals = 2, postalars = 2, the posterior one longer than the postsutural part of the mesonotum, mesopleurals = 1 + 5, sternopleurals = 1 + 2, forming an isosceles triangle. Legs brown. Fore-tibia without a *p*; mid-femur with 2-3 long *v* in the basal half and 1 strong *p* at the apex; mid-tibia with 1 strong *p* at the middle; hind-femur with about 3-4 long *ad* and 3 long *av*, the most apical *av* very strongly developed; hind-tibia with 1 very long *ad* at the middle and 1 *av* beyond it. Wings with a brownish tinge, membrane covered with microtrichiae, veins brown, costal spine well developed and longer than r-m, the node of r_{4+5} with some fine dark setae, media distinctly bent upwards in the apical section. Calyptera whitish, the lower part with a yellow margin, halteres yellow.

Abdomen greyish but dorsally on each of the tergites I + II, III and IV 2 dark brown spots, extending from the anterior margin of each segment to the posterior margin. The spots of triangular or squarish shape and separated from one another by a narrow grey longitudinal vitta dilating in the posterior half. Hypopygium with the cerci and paralobi as in fig. 5.

Length 6 mm.

FEMALE. Unknown.

LOCALITY. RUANDA: Karisimbi, ii.1935, 1 ♂, leg. de Witte. Holotype in the S.A. Institute for Medical Research.

Spilogona aristalis spec. nov., fig. 6

This species differs from *Spilogona spinipes* Bigot in having only 2 distinct dark longitudinal vittae on the presutural part of the mesonotum whereas in *Spilogona spinipes* Bigot the mesonotum is grey dusted and has 5 dark brown longitudinal vittae.

MALE. Head with the face silver-greyish dusted only the frontal stripe dark brown. Frons at its narrowest point about $1\frac{1}{2}$ times as wide as the ocellar triangle. Proboscis, palpi and antennae dark. Arista rather short and the longest rays not half as long as the basal diameter of the arista. About 8 pairs of parafrontals and 1 pair of ocellars present. Eyes naked and without enlarged facets. Head about as long as high and at the antennal base somewhat longer than at the mouth-margin.

Thorax ground-colour grey, dorsally only on the presutural part of the mesonotum 2 narrow weakly developed dark grey longitudinal vittae which may extend beyond the suture. The scutellum dorsally somewhat brownish. Chaetotaxy: acrostichals = numerous, short and irregularly distributed in 4-5 rows, the posterior postsutural ones somewhat stronger, dorsocentrals = 2 + 4, the anterior 2 post *dc* distinctively shorter than the posterior ones, humerals = 2, posthumerals = 2, notopleurals = 2, intralarars = 2, postalars = 2, the posterior one very long, mesopleurals = 1 + 5, sternopleurals = 1 + 2, hypopleuron bare. Legs brownish with some grey pollinosity. Fore-tibia with a *p* at the middle; mid-femur with some *a* and some *v* bristles in the basal half as well as some *p* at the apex; mid-tibia with 2 *p* in the middle third; hind-femur with a row of

ad and about 4 *av* in the apical half; hind-tibia with 2 rather strong *ad* and 1 *av* in the middle third. Wings hyaline, membrane covered with microtrichiae, veins yellowish-brown and bare, halteres yellow, calyptera yellowish-white.

Abdomen ground-colour grey, tergites I+II, tergite III and tergite IV with dark grey spots extending all over the length of the tergites and separated from one another by a narrow median grey longitudinal vitta. On tergite V 2 very small and weakly developed spots. Hypopygium with the cerci and paralobi as in fig. 6.

FEMALE. Resembles the male but differs in the following characters: frons about 0.5 times as wide as the vertical length of an eye, ocellar triangle nearly extends to the ptilinal suture and 2 pairs of verticals present. Dark pattern of thorax even more weak than in the male and abdomen shows no dark pattern.

Length about 4 mm.

LOCALITY. SOUTH WEST AFRICA: Walvis Bay, 3 ♂, 1 ♀, vii.1957; Windhoek, 1 ♂, vii.1957. ♂ holotype, 3 ♂ and 1 ♀ paratypes in the S.A. Institute for Medical Research.

***Spilogona pseudospinipes* spec. nov., fig. 7**

This species leads in van Emden's (1951) key to *Spilogona gilvifrons* van Emden, but it can be easily distinguished by the colour of the mesonotum which is pale grey to cinereous in *S. gilvifrons* and brown with 2 distinct and 2 weakly developed grey longitudinal vittae in *S. pseudospinipes* (fig. 7).

FEMALE. Head with the face silver-grey dusted, frontal stripe brown; frons at its narrowest point about 0.7 times as wide as the vertical length of one eye. Proboscis, palpi and antennae dark brown; parafrontalia with about 5 pairs of strong bristles; the upper 2 pairs reclinate, as well as with numerous small irregularly distributed bristles, 1 pair of ocellars and 2 pairs of verticals present. Eyes bare.

Thorax ground-colour grey, mesonotum brown with 2 grey longitudinal vittae inside the dorsocentral rows, interrupted at the suture and a grey longitudinal spot outside the dorsocentral row above the wings, scutellum dark brown with a grey semicircular spot on the anterior half. Chaetotaxy: acrostichals=short and numerous, irregularly distributed in 3 rows on the presutural part of the mesonotum, in about 5 rows on the postsutural part, dorsocentrals=2+4, humerals=3, posthumerals=2, notopleurals=2, mesopleurals=1+5, sternopleurals=1+2, hypopleuron and prosternum bare. Legs brown with grey pollinosity; fore-tibia without a *p*; mid-femur with 1 strong *a* at the middle and 1 *p* at the apex; mid-tibia with 2 *p* in the middle third; hind-femur with a row of *ad* and 2-3 *av* in the apical third; hind-tibia with 1 *ad* and 1 *av* in the middle third. Wings with a dark brown tinge, veins dark brown, node of r_{4+5} dorsally and ventrally with some black setae, calyptera yellowish, halteres yellow.

Abdomen ground-colour grey, all tergites dorsally with 2 big brown spots of nearly L-shape, tergites I+II dorsally completely brown, the other tergites with a median longitudinal vitta.

Length 5-6 mm.

MALE. Unknown.

LOCALITY. SOUTH AFRICA: Natal, Giants Castle, 4 ♀, xi.1957, leg. Paterson. ♀ holotype and 3 ♀ paratypes in the S.A. Institute for Medical Research.

***Phaonia capensis* spec. nov.**

Phaonia capensis resembles *P. suturalis* Stein but is distinguishable by its uniformly grey dusted abdomen, which has a brown median vitta and apical bands on the last tergites in *P. suturalis*.

FEMALE. Head with the face grey dusted, the frontal stripe somewhat darker. Frons at its narrowest point about 0,4 times as wide as the vertical length of one eye. Proboscis with the mentum light brown, labellae dark brown, palpi yellowish brown but the apical third dark brown, the antennae light brown with the last segment dark brown. Arista long and with long rays. Parafrontalia with about 6 pairs of strong bristles, the posterior 2 pairs reclinate. 1 pair of ocellars and 2 pairs of verticals present. Eyes haired.

Thorax ground-colour light brown, dorsally darker and in the presutural part of the mesonotum grey dusted and with 2 clearly defined dark longitudinal vittae inside the dorsocentrals extending somewhat beyond the suture. 2 only weakly developed longitudinal vittae between the intra-alars and the postsutural dorsocentrals. Anterior spiraculum brown. Chaetotaxy: acrostichals=short and numerous only the posterior postsutural pair long, dorsocentrals=2+3, all very long, humerals=2, posthumerals=2, notopleurals=2, intra-alars=2, pre-alar present and much longer than the posterior notopleural bristle, mesopleurals=1+6, sternopleurals=1+2, hypopleuron bare. Legs yellow with the tarsi dark brown. Fore-tibia without a *p*; mid-femur with 3 *a* and about 3 *v* in the basal half and 2 strong *p* at the apex; mid-tibia with 2 *p*; hind-femur with a row of *ad*, 4 strong *av* in the apical half and 2 much smaller *av* in the basal half; hind-tibia with 2 *ad* and 1 *av* beyond the middle as well as 1 strong *pd* in the apical fourth. Wings with a light brownish tinge, membrane uniformly covered with microtrichiae, veins light brown to brown and bare, costal spine well-developed and about as long as r-m. Calyptera yellowish, halteres yellow.

Abdomen with the tergites uniformly grey dusted, small parts of the tergites ventrad and all of the sternites yellowish brown.

Length 8 mm.

MALE. Unknown.

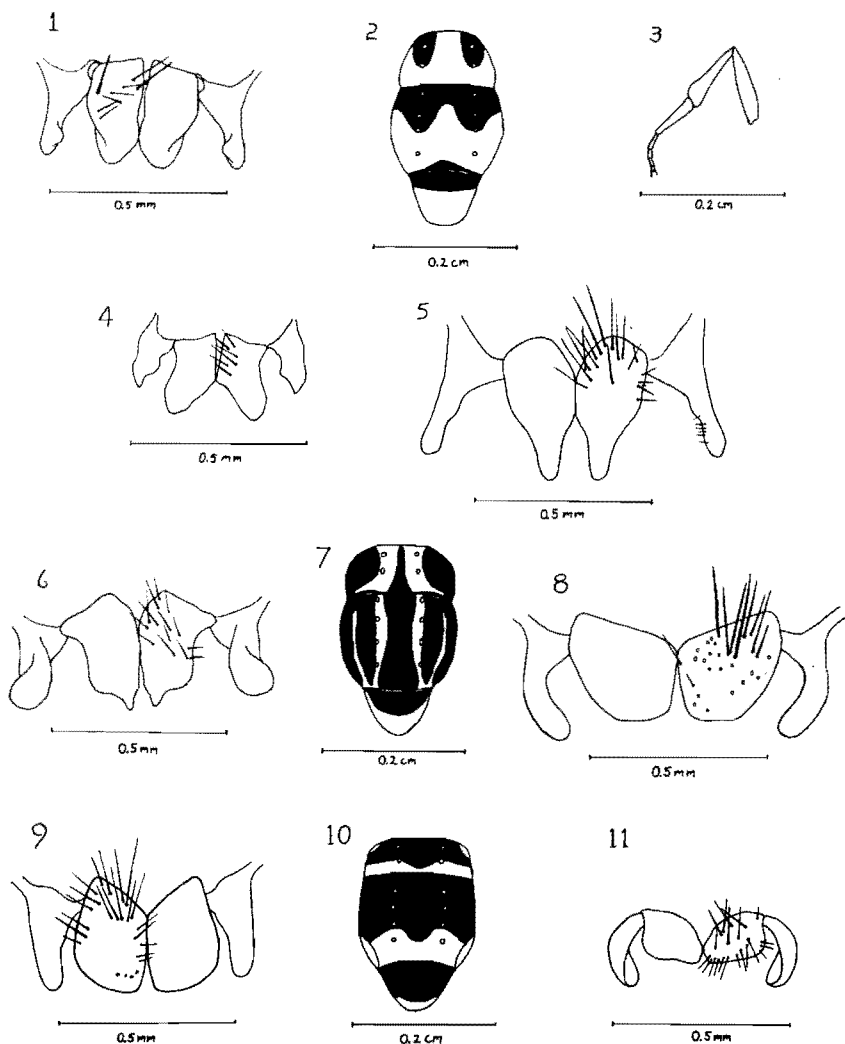
LOCALITY. SOUTH AFRICA: Cape Prov., Pt. St. John's 1 ♀, x.1916, leg. Swinny. Holotype in the S.A. Institute for Medical Research.

***Helina scutellaris* spec. nov.**

Helina scutellaris differs from *H. icterica* Ség. in having 2 intra-alar bristles whereas *H. icterica* has only 1. The mesonotum in *H. scutellaris* has 2 and in *H. icterica* 4 brown longitudinal vittae.

FEMALE. Head with the face grey dusted, frontal stripe dark, ocellar triangle nearly extending to the ptilinal suture, frons at its narrowest point about 0,5 times as wide as the vertical length of an eye. Proboscis brown, palpi and antennae fuscous. Parafrontalia with about 6 pairs of strong bristles, the 2 posterior pairs reclinate, 1 pair of strong ocellars and 2 pairs of verticals present; eyes bare.

Thorax ground-colour yellowish to light brown, dorsally grey dusted and with 2 brown longitudinal vittae inside the dorsocentrals extending to the scutellar suture,



Figs. 1–11. 1. *Limnophora marriotti* spec. nov., ♂, cerci and paralobi, dorsal view. 2. *L. setulosa* spec. nov., ♀, pattern of mesonotum and scutellum. 3, 4. *L. tibialis* spec. nov., ♂, (3) foreleg, (4) cerci and paralobi. 5. *Spilogona wittei* spec. nov., ♂, cerci and paralobi, dorsal view. 6. *S. aristalis* spec. nov., ♂, cerci and paralobi, dorsal view. 7. *S. pseudospinipes* spec. nov., ♀, pattern of mesonotum and scutellum. 8. *Helina capensis* spec. nov., ♂, cerci and paralobi, dorsal view. 9. *Mydaea gagnei* spec. nov., ♂, cerci and paralobi, dorsal view. 10, 11. *Gymnodia patersoni* spec. nov., ♂, (10) pattern of mesonotum and scutellum, (11) cerci and paralobi, dorsal view.

scutellum laterally yellow. Chaetotaxy: dorsocentrals=2+3, humerals=2, post-humerals=2, notopleurals=2, intra-alars=2, mesopleurals=1+6, sternopleurals=

2+2, the lower posterior one more distant from the anterior than from the posterior upper one. Legs yellow but with the tarsi dark brown; fore-tibia with 1 distinct *p* and 3 small but distinct *ad* in the apical half; mid-femur with a row of *a* in the basal half and 2 *p* at the apex; mid-tibia with 2 *p*; hind-femur with a row of *ad* and about 4–5 *av* in the apical half; hind-tibia with 2–3 *ad* and 1 *av* in the middle third. Wings with a striking yellowish-brown tinge, veins yellow, costal spine well-developed, r-m and the posterior cross-vein with dark spots; calyptera and halteres yellow.

Abdomen grey, tergites III and IV each with 2 very small roundish brown spots, strong bristles with a brown spot at the insertion, tergite V only with a distinct row of discals, tergite IV with discals and marginals.

Length 8.5 mm.

MALE. Unknown.

LOCALITY. SOUTH AFRICA: Natal, Cathedral Park Area, Indumeni Forest, 1 ♀, iii.1955, *leg.* Stuckenberg. Holotype in the S.A. Institute for Medical Research.

***Helina capensis* spec. nov., fig. 8**

This species leads in van Ermden's key to *Helina rufina* Stein but differs in having 4 *av* on the hind-tibia whereas *H. rufina* has only 2 *av*; the abdomen of *H. rufina* has some spots on tergites III and IV but in *H. capensis* is dark brown.

MALE. Head with the face weakly grey dusted, frons at its narrowest point smaller than the diameter of the anterior ocellus. Proboscis and palpi dark, antennae yellowish brown, about 4 pairs of strong bristles above the antennal groove and 1 pair of very small proclinate bristles beside the anterior ocellus, 1 pair of ocellars and 1 pair of verticals present; eyes naked.

Thorax ground-colour brown and weakly grey dusted, dorsally inside of the dorsocentral rows 2 brown longitudinal vittae almost extending over the whole length, the postsutural part of the mesonotum with a median dark longitudinal vitta and 2 short brown vittae outside the dorsocentrals. Chaetotaxy: dorsocentrals=2+4, humerals=2, posthumerals=2, notopleurals=2, intra-alars=2, pre-alars=1, smaller than the 2nd notopleural bristle, mesopleurals=1+6–7, sternopleurals=1+2, the ventrolateral margin of the scutellum with some hair-like bristles. Legs brown; fore-tibia without a *p*; mid-femur with 1 strong *v* in the basal half and 2 *p* at the apex; mid-tibia with 2 *p*; hind-femur with a row of *ad*, about 5–6 long *av* and in the basal half with 2 long *pv*; hind-tibia with 4 strong *av* in the middle third and 1 strong *ad*. Wings with a dark brown tinge, veins brown, *r*₄₊₅ ventrally beyond the node with some small setae, calyptera yellowish brown, halteres yellow.

Abdomen dark brown, the anterior tergites somewhat lighter than the posterior ones. Hypopygium with the cerci and paralobi as in fig. 8.

Length 7 mm.

FEMALE. Unknown.

LOCALITY. SOUTH AFRICA: Cape Prov., St. John's, 1 ♂, ii.1954, *leg.* Paterson. Holotype in the S.A. Institute for Medical Research.

***Mydaea gagnei* spec. nov., fig. 9**

Mydaea gagnei resembles *M. melsetter* Snyder, but is distinguishable from this species by the abdominal colour, which is yellowish with a brown pattern on tergites III, IV and V in *M. gagnei* and more brownish with grey pruinescence in *M. melsetter*.

MALE. Head with the face grey dusted, frons at its narrowest point smaller than the anterior ocellus. Proboscis, palpi and antennae brown. Only some small parafrontals above the antennal groove present. Eyes naked and with a distinct area of enlarged facets.

Thorax yellowish brown, dorsally with grey pollinosity but without a distinct pattern. Chaetotaxy: acrostichals=numerous and short, the posterior pair on the post-sutural part of the mesonotum stronger, dorsocentrals=2+4, humerals=2, post-humerals=2, notopleurals=2, mesopleurals=1+6, sternopleurals=2+2. Legs yellow with the tarsi brown; fore-tibia without a *p*; mid-femur in the basal half with 2 *v*, at the apex with 2 *p*; mid-tibia with 2 *p*; hind-femur with a row of *ad* and in the apical half 3–5 *av*; hind-tibia with 2 *ad* and 1 *av* in the middle third. Wings with a weak brownish tinge, veins brown, r_{4+5} dorsally and ventrally on the node with 2 small setae, media in the apical section straight. Calyptera and halteres yellow.

Abdomen with the tergites I+II and III yellow, tergite III apically with a narrow brown band, tergite IV with a large dark brown spot, tergite V brown, all tergites in a certain light weakly grey dusted. Sternites yellowish-orange. Hypopygium with the cerci and parolobi as in fig. 9.

Length 7 mm.

FEMALE. Unknown.

LOCALITY. UGANDA: Ankole, Kichwamba, 1 ♂, v.1968, *leg.* Spangler. This species is named after Dr. R. Gagné, Smithsonian Institution, Washington, who made material from Uganda available to me.

***Hydrotaea patersoni* spec. nov.**

This species resembles *Hydrotaea fasciata* Stein but differs from it in the bare eyes, which are densely haired in *H. fasciata*, and in having a distinct posterior bristle on the fore-tibia, which is wanting in *H. fasciata*.

FEMALE. Head with the face and the ocellar triangle grey dusted, frontal stripe dark brown. Proboscis, palpi and antennae dark brown. Parafrontalia with 5 pairs of strong bristles, the 2 posterior ones reclinate, 1 pair of interfrontals, 1 pair of ocellars and 2 pairs of verticals present. Eyes bare.

Thorax grey, the presutural part of the mesonotum with a dark, broad transverse band, extending to the 2nd pair of dorsocentrals, laterally somewhat roundish, the postsutural part with a broad, dark transverse band, extending beyond the 2nd pair of postsutural dorsocentrals, scutellum dark, only with a small grey apex. Chaetotaxy: acrostichals=numerous and rather short, irregularly distributed in 2 rows, the presutural ones somewhat stronger, dorsocentrals=2+3, humerals=3, posthumerals=2, notopleurals=2, mesopleurals=1+3, sternopleurals=1+2. Legs dark; fore-tibia with a distinct *p*; mid-femur with about 2 *a* in the basal half and 2 *p* at the apex; mid-tibia with

2 *p*; hind-femur with a row of *ad* and some *av* in the apical half; hind-tibia with 2 strong *ad* and 1 *av* in the middle third, in the apical half 1 very long *pd*. Wings with a brownish tinge, veins brown, calyptera white, halteres yellow.

Abdomen ground-colour grey, tergites I+II to IV each with 2 brown spots in the anterior half, as well as one short median longitudinal vitta; the spots and the vitta fused in their anterior parts, thus forming a dark basal band, tergite V only with 1 dark spot of triangular shape.

Length about 4.5 mm.

MALE. Unknown.

LOCALITY. SOUTH AFRICA: Cape Prov., Pt. St. John's, 1 ♀, ii.1954, *leg.* Paterson. Holotype in the S.A. Institute for Medical Research.

Gymnodia patersoni spec. nov., figs. 10, 11

Gymnodia patersoni leads in van Emden's key (1951) to *G. merviana* Walker, but differs from this species in the thoracic pattern. In *G. merviana* the dark transversal band of the postsutural part is of almost even width. In *G. patersoni* the presutural transversal band is expanded in the middle and the postsutural band is emarginated (fig. 10).

MALE. Head with the face dark, the parafacialia in a certain light weakly greyish dusted, frons at its narrowest point about as wide as the anterior ocellus. Proboscis, palpi and antennae dark brown, the longest rays of the arista not longer than the diameter of the arista. About 10 pairs of short but strong parafrontals in the anterior half of the frons. Eyes bare.

Thorax ground-colour grey, presutural part of the mesonotum with a broad black transverse band, extending to the 2nd pair of dorsocentrals, at the middle with a roundish expansion nearly extending to the suture, postsutural part of the mesonotum with a broad dark transverse band, laterally and in the middle extending to the last pair of postsutural dorsocentrals, inside the dorsocentral rows at the apical margin of the transverse band with a roundish emargination to the 3rd pair of dorsocentrals, scutellum dark with a small grey tip (fig. 10). Chaetotaxy: acrostichals=small and numerous, irregularly distributed in 4 rows, the outer rows on the presutural part of the mesonotum as distant from one another as each from the dorsocentral row, dorsocentrals=2+4, humerals=2, posthumerals=2, notopleurals=2, mesopleurals=1+6, sternopleurals=1+6. Legs brown; fore-tibia without a *p*; mid-femur with 2 short *av* and *pv* in the basal half and 2 strong *p* at the apex; mid-tibia with 1 *p*; hind-femur with a row of *ad* and about 3-4 *av* in the apical third; hind-tibia with 1-2 *av* and 1 *ad* in the middle third. Wings hyaline, veins yellowish to brown, media slightly bent upwards, calyptera transparent, halteres yellow.

Abdomen ground-colour yellow, dorsally tergites I+II dark brown, tergite III with a brown longitudinal vitta and a narrow apical band, tergite IV with about the same pattern but the apical band broader, tergite V completely dark, in a certain light the abdomen somewhat greyish dusted. Hypopygium with the cerci and paralobi as in fig. 11.

Length about 5.5 mm.

FEMALE. Unknown.

LOCALITY. SOUTH AFRICA: Natal, Giant's Castle, 1 ♂, xi.1957, *leg.* Paterson. Holotype in the S.A. Institute for Medical Research.

***Coenosia stuckenbergi* spec. nov., fig. 12**

The males of this new species are characterized by the absence of the presutural dorsocentral bristles as well as by the yellowish colour of the legs.

MALE. Head with the face golden-greyish dusted, frontal stripe somewhat darker. Frons at its narrowest point nearly 0.5 times as wide as the vertical length of an eye. Proboscis and antennae dark brown, palpi yellowish-brown. About 2 pairs of strong parafrontals beside some smaller ones as well as 1 pair of verticals present.

Thorax dark grey, dorsally with 3 brown, weakly developed narrow longitudinal vittae. Chaetotaxy: dorsocentrals = 0 + 1, humerals = 1 small one, posthumeral = 0, notopleurals = 2, mesopleurals = 0 + 5, postalars = 2, sternopleurals = 1 + 2. Legs yellow, fore-femur dark grey with a yellow apex, tarsi brownish. Fore-tibia without a distinct *p*; mid-femur with some short but distinct *a*, in the basal half about 2–3 *av* and 3 *pv*, at the apex 1 *p*, the apical third dark; mid-tibia with a very short *p* bristle in the middle third, hardly distinguishable from the clothing bristles; hind-femur with a row of *ad* and 3–4 *av*, in the basal half about 2 *pv*, the apical fourth brown; hind-tibia with 1 strong *ad* in the middle third. Wings hyaline, membrane covered with microtrichiae, veins yellowish-brown and bare, calyptera rather small and transparent, halteres yellow.

Abdomen grey with a weakly developed darker median longitudinal vitta, laterally on each tergite a darker spot of roundish shape. Hypopygium with the cerci and parolobi as in fig. 12.

Length about 3 mm.

FEMALE. Unknown.

LOCALITY. RHODESIA: Inyanga National Park, i.1955, *leg.* Stuckenberg. 3 ♂ holotype and 2 ♂ paratypes in the S.A. Institute for Medical Research.

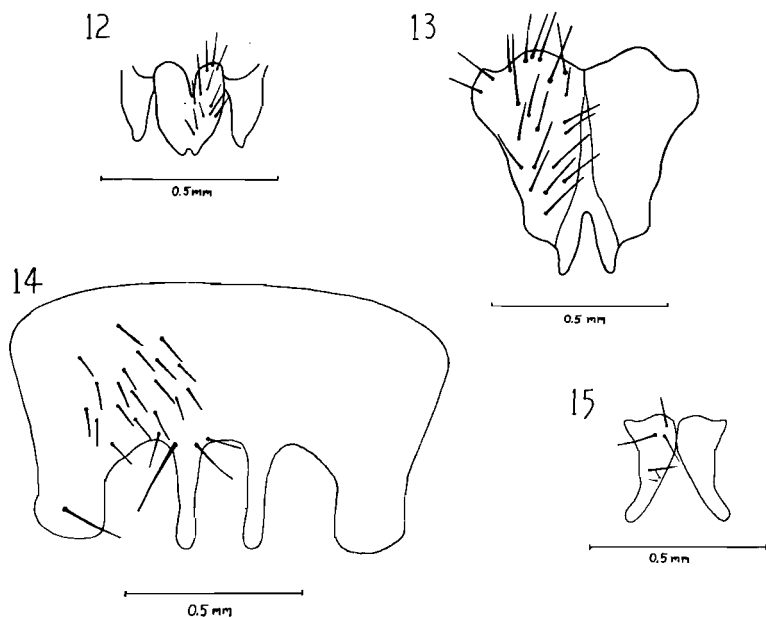
***Coenosia longiseta* spec. nov.**

This species is characterized by a pair of very long fronto-orbital bristles which are about as long as the height of the head and which have a small knob at the apex.

MALE. Head with the face completely grey, proboscis and palpi dark brown, antennae grey. Arista very long and nearly naked. Frons at its narrowest point $1\frac{1}{2}$ times as wide as the ocellar triangle. Parafrontalia with 3 pairs of strong bristles and 2 pairs of smaller ones between these. 1 pair of normally developed fronto-orbital bristles present and 1 pair of extremely long ones with a small knob at the apex as well as 1 pair of ocellars and 1 pair of long verticals. Eyes naked and without enlarged facets. Head at the mouth-margin somewhat longer than at the antennal base.

Thorax laterally grey, dorsally brown with somewhat greyish pollinosity on

the lateral parts of the scutellum, in the anterior part of the presutural part of the mesonotum as well as on the humeral calli. Mesonotum with 3 dark brown very narrow longitudinal vittae, extending to the last pair of postsutural dorsocentrals. Chaetotaxy: acrostichals=short, bristle-like, numerous and irregularly distributed in 2 rows, the posterior postsutural acrostichals somewhat stronger, dorsocentrals=2+3, but the anterior pair of presutural dorsocentrals very small and weakly developed, humerals=2, notopleurals=2, intra-alars=2, mesopleurals=1+4, sternopleurals=1+2, hypopleuron bare. Legs dark brown with little greyish dust. Fore-tibia with a distinct *p* at



Figs. 12-15. 12. *Coenosia stuckenbergi* spec. nov., ♂, cerci and paralobi, dorsal view. 13, 14. *Lispe capensis* spec. nov., ♂, (13) cerci, dorsal view, (14) fifth sternite, ventral view. 15. *Fannia simulata* spec. nov., ♂, cerci, dorsal view.

about the middle; mid-femur with 2 long *a* and 2-3 *av* in the apical half and 1 strong *p* at the apex; mid-tibia with 1 strong *p*; hind-femur with a row of *ad*, 2-3 *av* and 1-2 *pv* in the apical half; hind-tibia only with the apical *d*. Wings hyaline, veins yellowish brown and bare, membrane uniformly covered with microtrichiae. Calyptera normally developed and yellowish transparent, halteres yellow.

Abdomen ground-colour grey, dorsally tergites I+II, III and IV with a dark brown median longitudinal vitta and on each segment laterally of the vitta a large squarish dark brown spot. Tergite V dorsally dark brown with only a greyish narrow basal band.

Length 3,8 mm.

FEMALE. Unknown.

LOCALITY. SOUTH AFRICA: Natal, Cathedral Peak area, iii.1955, *leg.* Stuckenberg. 1 ♂ holotype in the S.A. Institute for Medical Research.

***Lispe capensis* spec. nov., figs. 13, 14**

This species leads in van Emden's (1941) key to no certain species, as in *Lispe capensis* the parafacialia have no strong bristles and the palpi and femora are dark, but the tibiae and tarsi are yellowish. All other known species without strong bristles on the parafacialia have either yellow palpi or at least dark fore-tarsi.

MALE. Head with the face grey dusted, frontal stripe dark. Parafacialia without strong bristles. Frons at its narrowest point about 0.5 times as wide as the vertical length of an eye. About 4 pairs of strong parafrontals, 2 pairs of reclinate fronto-orbitals, 1 pair of long ocellars and 2 pairs of strong verticals present. Proboscis, palpi and antennae dark. Eyes bare.

Thorax laterally grey, dorsally shining brown with 4 narrow, grey longitudinal vittae on the presutural part of the mesonotum and with some pollinosity before and beyond the scutellar suture. Chaetotaxy: dorsocentrals = 2 + 4, humerals = 2, post-humerals = 2, notopleurals = 2, mesopleurals = 1 + 5-7, sternopleurals = 1 + 2. Legs with the femora dark, tibiae and tarsi yellowish; fore-tibia without a *p*; mid-femur with 2 *p* at the apex; mid-tibia with 1 *p* in the middle third; hind-femur with a row of *ad* and at the apex with 1 *av* and 2-4 *pv*; hind-tibia with 1 *ad* beyond the middle. Wings hyaline, membrane uniformly covered with microtrichiae, veins yellowish brown and bare. Calyptera white, halteres yellow.

Abdomen with the anterior half of tergites I+II brown, the posterior half grey, tergites III and IV brown, each in the anterior half laterally with a grey spot of triangular shape, the last tergite grey with a brown median longitudinal vitta dilating in the posterior half. Hypopygium with the cerci as in fig. 13 and the fifth sternite as in fig. 14.

FEMALE. Resembles the male but is larger, the palpi and legs are darker, particularly the tarsi. Thorax laterally grey or brownish-grey, dorsally dark brown with light brown pollinosity.

Length 6-7 mm.

LOCALITY. SOUTH AFRICA: Cape Town, Cape Prov., xii.1955, 6 ♂ and 6 ♀, *leg.* Paterson. ♂ holotype, 5 ♂ and 6 ♀ paratypes in the S.A. Institute for Medical Research.

***Fannia simulata* spec. nov., fig. 15**

Fannia simulata leads in van Emden's (1941) key to *F. perpulchra* Bezzi but differs from this species in the pattern of the mesonotum, which has in *F. perpulchra* a broad transverse band in the postsutural part of the mesonotum. In *F. simulata* the transverse band is broadly interrupted in the middle.

MALE. Head with the face grey dusted, frontal stripe brown. Proboscis, palpi and antennae brown, frons at its narrowest point about as broad as the ocellar triangle,

about 11 pairs of parafrontals and 1 pair of reclinate fronto-orbitals present as well as 1 pair of ocellars, parafacialia much broader than the base of the arista. Eyes bare.

Thorax grey, the presutural part with a dark brown transverse band beyond the suture, but broadly interrupted in the middle. Scutellum dark brown. Chaetotaxy: acrostichals=short but numerous, irregularly distributed in 2-3 rows on the presutural part and in 4 rows on the postsutural part of the mesonotum, the posterior pair stronger, dorsocentrals=2+3, the anterior presutural dorsocentral bristle weakly developed, humerals=2, posthumerals=2, notopleurals=2, postalars=2, mesopleurals=0+5, sternopleurals=1+1. Legs brownish; fore-tibia without a *p*; mid-femur with a row of short but distinct *pv*, about 5 strong *p* and some *a* in the apical half; mid-tibia with 1 *ad* in the apical third and 1 *p* in the apical half; hind-femur with a row of short *ad* and short *av*; hind-tibia with 2 *ad* and 1-2 *av* as well as 1 long *d* bristle. Wings hyaline, membrane uniformly covered with microtrichiae, veins yellowish-brown and bare.

Abdomen with the tergites I+II to IV yellow with a broad median longitudinal vitta as well as a dark posterior band, the anterior half of tergites I+II yellow, the last tergite dark brown with 2 small yellowish spots laterally in the anterior half. Hypopygium with the cerci as in fig. 15.

FEMALE. Resembles the male, but the frons is about 0.5 times as wide as the vertical length of an eye, 2 pairs of strong reclinate fronto-orbitals and 2 pairs of verticals present. Parafacialia with small bristles. The last tergite of the abdomen apically dark, the anterior half yellowish-brown with a dark median vitta.

Length about 5.5-6.0 mm.

LOCALITY. SOUTH AFRICA: Transvaal, Rustenburg, ix.1961, 4 ♂, 3 ♀, *leg.* Paterson; Potchefstroom, ii. 1953, 1 ♂, 2 ♀, *leg.* Paterson. ♂ holotype, 4 ♂ and 5 ♀ paratypes in the S.A. Institute for Medical Research.

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